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ASSIGNMENT 2

ITRI 625

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Introduction

For this assignment we were asked to write a single line spacing page on the investigation that we did on Walmart switching to big data. Topics that will be discussed are motivation for change, challenges and solutions, data types and data migration tools and schedules.

Motivation for change

According to Marr (2021) one of the biggest motivation for moving to big data is improving the way that data is managed. It enabled them to add an additional layer of abstraction, this allowed them to add numerous use cases, such as mining data that varied of formats to use for specific purposes (Chouffani, 2013).

Because data collection could be run in real time, if any anomalies were to be detected, an analysis could be done immediately (Dudkin, 2017). With the use of Big Data, Walmart had the ability to get insight on incredible data as well as detect hidden patterns in the behaviours of their customers.

Challenges and solutions

The company wanted to anticipate the expectations of their customers, for example they saw that the sale of baby diapers and beer were interrelated, thus moving these two items closer to each other had an increase to their sales (Dudkin, 2017). One of the other challenges Walmart faced the high speed that information was coming in, it made it hard for people to analyse, the solution was that big data would reduce the possibility of human error (Staff, 2017).

According to Staff (2017), big data analytics is the key to Walmart's enhancement of customers experience, whether it be using data for optimizing prices or transportation routes between supply chains.

Data types

According to Staff (2017), some of the distinct types of data that they collect include the use of simulations at the pharmacies, to establish the busiest times during the day, week or month. Walmart used Big Data to determine how busy the stores are at certain hours and associate those hours with how many associates are needed at the check outs.

Walmart also used simulations to track the number of steps that items take from the docks to the store. This data allowed the company to optimize the routes taken to the shipping dock to the customer (Staff, 2017). They use data patterns to personalize user experiences, when the user is looking for baby products, Walmart can personalize mobile rollback deals and help them in real time by better predictions and anticipating their needs (Staff, 2017).

Migration tools and schedules

According to Pradeep (2018), Azure is the strategic and preferred cloud provider for Walmart. As an extension of the partnership between Microsoft and Walmart, their IT teams focused on migrating thousands of business applications for Walmart to Azure (Pradeep, 2018). The Walmart-Microsoft team will also build new cloud-based apps for Walmart to increase the effectiveness of business process and the cost of operations (Pradeep, 2018).

Walmart used Big Data, as well as the volume of data to their advantage. They analysed the robust information throughout their operations and discovered that real-time data can improve their schedules in a wide variety of ways, including their stores, e-commerce, distribution centres and pharmacies (Staff, 2017).

Conclusion

The introduction of new and moderate solutions to manage business had become necessary. This is certainly true in business and retail. Walmart was able to process 2.5 petabytes of data every hour (Marr, 2017), the strategy provided effectiveness, the turnover and operating profit was around \$22.8 billion according to (Dudkin, 2017).

References

Chouffani, R. (2013). 5 Reasons to Move to Big Data (and 1 Reason Why It Won't Be Easy).

<https://www.cio.com/article/2385690/5-reasons-to-move-to-big-data-and-1-reason-why-it-won-t-be-easy.html>

- Dudkin, I. (2017). HOW BIG DATA HELPS WALMART GET THE TURNOVER OF HALF A TRILLION DOLLARS PER YEAR. <https://skywell.software/blog/how-big-data-helps-walmart-get-the-turnover-of-half-a-trillion-dollars-per-year/>
- Marr, B. (2017). Big Data At Walmart: How The Mind-Blowing 40+ Petabyte Improves Retail Decision-Making. <https://www.linkedin.com/pulse/big-data-walmart-how-mind-blowing-40-petabyte-improves-bernard-marr/>
- Marr, B. (2021). Walmart: Big Data analytics at the world's biggest retailer. <https://bernardmarr.com/walmart-big-data-analytics-at-the-worlds-biggest-retailer/>
- Pradeep. (2018). Walmart is working with Microsoft to migrate thousands of internal business apps to Azure. <https://mspoweruser.com/walmart-is-working-with-microsoft-to-migrate-thousands-of-internal-business-apps-to-azure/>
- Staff, W. (2017). 5 Ways Walmart Uses Big Data to Help Customers. <https://corporate.walmart.com/newsroom/innovation/20170807/5-ways-walmart-uses-big-data-to-help-customers>